

# **LOW ANKLE BRACHIAL INDEX AS A PREDICTOR OF CORONARY ARTERY DISEASE – A HOSPITAL BASED STUDY**

## **ABSTRACT**

### **BACKGROUND**

Atherosclerosis contributes to significant mortality and morbidity. Both symptomatic and asymptomatic patients with atherosclerosis and peripheral vascular disease are at increased risk of adverse cardiovascular events. Atherosclerosis is a systemic disease affecting all vascular beds.

### **OBJECTIVES**

To study the relationship between coronary artery disease and peripheral vascular disease in high risk population using Ankle Brachial Index. To study the relationship of various risk factors like blood pressure, diabetes and dyslipidemia and ABI values

### **METHODS**

In this study which is a single centre observational study conducted for a period of 1 year, patients with CAD were classified as ABI positive and negative groups and the various risk factors for CAD were compared between the two groups. Data analysis was done using SPSS 16 and Microsoft Excel 2007. Statistical significance was taken as p value <0.05.

## **RESULTS AND CONCLUSION**

Among our study population, Age, gender and smoking status had no statistically significant role to play in determination of the relationship between peripheral arterial disease and coronary artery disease in high risk population using ankle brachial index. This might be explained by the fact that older age is associated with stiff vessels and thus higher ABI values. On internal comparison the following conclusions were observed

- ABI+ve patients associated with higher incidence of diabetes mellitus
- ABI+ve patients associated with higher incidence of hypertension
- ABI+ve patients associated with higher incidence of dyslipidemia
- ABI+ve patients associated with higher incidence of CAD
- The risk of coronary stenosis was significantly higher in ABI+ve patients with increased incidence of diagonal artery 1 (D1) and obtuse marginal artery (OM) involvements
- An abnormal ABI was an independent predictor of CAD, lesions in coronary arteries and atherosclerotic risk factors

## **KEYWORDS**

Coronary artery disease

Peripheral vascular disease

Ankle Brachial Index